

CLAIMS

*Ins a<sup>3</sup>* *Add B4*

1. A security item, characterized by at least one security element having at least one photoluminescent segment characterized by a linearly polarized photoluminescence and/or linearly polarized absorption.
2. The security item, characterized by at least one security element having at least one segment characterized by a linearly polarized absorption.
3. The security item according to Claims 1 through 2, characterized in that this segment has a dichroic ratio of 2 or more in absorption and/or emission.
4. The security item according to Claims 1 through 2, characterized in that this segment has a dichroic ratio of 5 or more in absorption and/or emission.
5. The security item according to Claims 1 through 2, characterized in that this segment has a dichroic ratio of 10 or more in absorption and/or emission.
6. The security item according to Claims 1 through 5, characterized in that the security element is in a form selected from the group consisting of fibers, threads, strips, films, sheets, layers, tapes, plates, disks, chips and/or combinations thereof.

7. The security item according to Claims 1 through 6, characterized in that apart from the security element, it consists mainly of paper.

8. The security item according to Claims 1 through 6, characterized in that apart from the security element, it contains one or more synthetic polymers.

9. The security item according to Claims 1 and 3 through 8, characterized in that the security element can be excited to luminescence by irradiation with electromagnetic radiation at a wavelength between 200 and 400 nm.

10. The security item according to Claims 1 and 3 through 9, characterized in that the security element includes at least one carrier polymer and one luminescent dye.

11. The security item according to Claims 1 and 3 through 10, characterized in that the luminescent dye is at least one partially conjugated polymer.

12. The security item according to Claims 1 and 3 through 11, characterized in that the luminescent dye is a poly-p-phenylene-ethynylene derivative.

13. A use of the security item according to Claims 1 through 12 for objects whose counterfeiting is to be made difficult or impossible.

14. The use of the security item according to Claims 1 through 12 for objects whose authenticity and/or validity is to be identified.

15. The use of the security item according to Claims 1 through 12 for objects whose identification is to be permitted and/or simplified.

16. The use of the security item according to Claims 1 through 12 for an object from the group consisting of bank notes, checks, stocks and bonds, securities, identification cards, passports, drivers licenses, admission tickets, stamps, bank cards, and credit cards.

17. A method of producing security items according to Claims 1 through 12, characterized, in that an object is provided with a security element which contains at least one segment and is characterized by a linearly polarized photoluminescence and/or a linearly polarized absorption.

TOP2060-2062-0260